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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,099	10/27/2006	Paul A. J. Morris	65008-067	5082
27305 7590 05/17/2007 HOWARD & HOWARD ATTORNEYS, P.C. THE PINEHURST OFFICE CENTER, SUITE #101 39400 WOODWARD AVENUE BLOOMFIELD HILLS, MI 48304-5151			EXAMINER VANATTA, AMY B	
			ART UNIT 3765	PAPER NUMBER
			MAIL DATE 05/17/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/580,099

Applicant(s)

MORRIS, PAUL A. J.

Examiner

Amy B. Vanatta

Art Unit

3765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 122006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o).

Specifically, MPEP § 608.01(o) states:

The meaning of every term used in any of the claims should be apparent from the descriptive portion of the specification with clear disclosure as to its import; and in mechanical cases, it should be identified in the descriptive portion of the specification by reference to the drawing, designating the part or parts therein to which the term applies. A term used in the claims may be given a special meaning in the description.
**>See MPEP § 2111.01 and § 2173.05(a).<

Correction of the following is required: The specification fails to specifically disclose what elements constitute the claimed "transport means". The specification briefly refers to the "transport means" but does not describe the "transport means" with reference to the drawings. Page 4 of the specification does not describe which elements of the apparatus are regarded as the "transport means", as opposed to the heat and pressure application means. That is, it appears that belt 20, driven by conveyor rollers 22,24, and heated roller 26 form the heat and pressure application means. It is unclear whether some, if any, of these elements are forming the "transport means".

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites "the yarns" (line 4) without proper antecedent basis.

Claim 1 recites "the fabric output speed" (line 7) without proper antecedent basis.

Claim 1 claims an apparatus for the treatment of fabric. It appears that the apparatus for the treatment of fabric comprises transport means and fabric speed control means. Claim 1 recites, however, that the fabric speed control means is downstream of "the apparatus" (see lines 6-7), implying that the fabric speed control means is not actually part of "the apparatus". Thus, it appears that "the apparatus" in line 7 should read as "the transport means".

Claim 8 recites "the yarns" (line 6) without proper antecedent basis.

Claim 8 recites "the fabric output speed" (last line) without proper antecedent basis.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claims 1, 2, 3 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Davis et al (US 3,382,553).

Davis et al disclose a method and apparatus for compacting fabric to produce stretch characteristics in the fabric. The apparatus includes transport means for effecting relative movement between a heat and pressure application means and the fabric (see compactor rolls 4 and lamps 5 which apply heat and pressure to the fabric while the fabric is transported through the compactor). At least the first and last roller of rolls 4 form a transport means through the compactor. The yarns across the width of the fabric are forced closer together as claimed (see col. 2, lines 64-66 disclosing that the fabric contracts widthwise). Nip rollers 10,11 are positioned downstream of the transport means (col. 4, lines 12-14). Nip roller 11 and drive roll 13 are driven by an electric motor and pulley arrangement 14 (col. 4, lines 16-18). Nip rollers 10,11 and drive roll 13 control the speed at which the fabric is output from the compacting rollers, thus forming a fabric speed control means as in claims 1-2. The nip rollers are adapted to be driven at a constant speed (by motor and pulley system 14) as in claim 3.

Regarding claim 8, a heat and pressure application means (4,5) is provided, and a transport means effects movement of the fabric as claimed. The fabric is passed through downstream fabric speed control means (10,11 and 13) to maintain the fabric output speed at a predetermined level as claimed. It is noted that the terminology in claims 1-3 and 8 claiming various "means" is not regarded as invoking 35 USC 112, 6th paragraph, since the means are modified by sufficient structure for achieving the specified function.

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6. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Metzen (US 4,920,621).

Metzen discloses an apparatus for compacting fabric as claimed. The apparatus includes transport means for effecting relative movement between the fabric 6 and the compacting means (see shrinking arrangement 4 comprising shrinking drum 7 and belt 8). The various rollers which transport the fabric through the system, for example rollers 9 and the feed and nip rollers shown in Fig. 1 just upstream and downstream of compacting means 4 (i.e. see un-numbered small feed rollers illustrated in the figure) form the claimed transporting means. It is noted that the heat and pressure application means is not claimed as forming part of the invention of claim 1; that is, it is merely functionally recited. The transport means of Metzen is clearly capable of functioning as claimed, that is, to effect relative movement between a heat and pressure application means and the fabric. Transport of the fabric through the apparatus results in widthwise shrinkage (col. 4, lines 37-38). Metzen discloses fabric speed control means downstream of the apparatus to maintain the fabric output speed at a predetermined level (see drive M6 which is driven in a manner to control the fabric speed. See col. 5, lines 32-col. 6, line 2. Also see col. 6, lines 48-51 disclosing that the exiting speed V_a of the fabric coincides with the surface speed of the drive drum of arrangement 5 as controlled by drive M6. Fig. 1 shows a nip formed between nip rollers and the calender drum of the drying arrangement 5, forming downstream nip rollers which are driven at a constant speed (by drive M6) as in claims 1-3.

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Upstream fabric speed control means is provided on the input side of the apparatus upstream of the transport means, comprising upstream nip rollers; see roller controlled by M4 and its cooperating nip rollers as shown in Fig. 1, or see roller controlled by M1 or roller controlled by M3 and its cooperating nip roller.

Regarding claim 6, control means is provided for controlling the speed difference between upstream and downstream fabric speed control means; see tension sensors (T1,T2,T3,T4) and controller described in col. 5, line 32 through col. 6, line 2. These tension sensors indirectly sense undershrinkage of the fabric (as a function of fabric tension) and thus some of the sensors (e.g. T2 or T3) form the additional control means as in claim 7.

It is noted that the terminology in claims 1-7 claiming various "means" is not regarded as invoking 35 USC 112, 6th paragraph, since the means are modified by sufficient structure for achieving the specified function.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Metzen (US 4,920,621) in view of Davis et al (US 3,382,553).

Metzen discloses a method of treatment of fabric including providing pressure application means to shrink the fabric (3 or 4), and providing transport means in the form of various rollers which transport the fabric through the system. Yarns across the width of the fabric are forced closer together when the fabric is shrunk in the widthwise direction, as claimed (col. 4, lines 36-38). A step of passing the fabric through downstream fabric speed control means is performed (see drive M6 which is driven in a manner to control the fabric speed). See col. 5, lines 32-col. 6, line 2. Also see col. 6, lines 48-51 disclosing that the exiting speed V_a of the fabric coincides with the surface speed of the drive drum of arrangement 5 as controlled by drive M6. The fabric is passed through upstream fabric speed control means as in claim 9; see upstream nip rollers controlled by M1 as shown in Fig. 1.

Metzen does not disclose that the pressure application means (either 3 or 4) includes a heat application means, as in claim 8. Metzen discloses that unit 3 results in reduction of the width of the fabric, and unit 4 shrinks the fabric in the lengthwise direction. It is conventional to provide heat application means during the shrinking of a fabric to promote fabric shrinkage. Davis et al disclose a series of rollers 4 which results in fabric shrinkage in the widthwise direction, and provides heat application means 5 to set the fabric (col. 3, lines 59-63). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide heat application means at the unit 3 of Metzen in order to set the fabric, as taught by Davis.

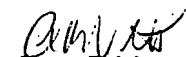
Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy B. Vanatta whose telephone number is 571-272-4995. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Welch can be reached on 571-272-4996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Amy B Vanatta
Primary Examiner
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